

REMARKS

The claims have been amended to improve the style of this application. Applicant thanks the Examiner for the careful reading of the application, for pointing out discrepancies and for providing suggestions.

Claims 1-6, 9, and 12-24 are in this application and are presented for reconsideration. By this amendment, Applicant has canceled claim 7 and amended claim 1, 12 and 21-23 to improve the clarity and style of this application.

Applicant has added new claim 24 which is based on the specification (see paragraph starting on page 9, line 15). The new claim does not add any new matter to the application.

By this amendment, the Applicant has amended several claims to overcome the Examiner's rejections and respectfully makes assertions for overcoming the rejections of the outstanding Office Action dated November 19, 2003 in the following paragraphs:

DUPLICATE CLAIM OBJECTION

Claim 7 has been objected to under 37 C.F.R. § 1.75 as being a substantial duplicate of claim 1. Claim 7 has been canceled.

CLAIM OBJECTIONS

Claims 22 and 23 have been objected to because certain limitations contained therein appear to be redundant with respect to the corresponding base claims. Claims 22 and 23 have been amended to particularly point out and distinctly claim the subject matter without providing further limitations which may seem redundant.

CLAIM REJECTIONS - 35 U.S.C. § 102

Claims 12 and 13 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Iwasa et al. (U.S. Patent No. 6,144,685, "Iwasa '685", hereinafter).

The prior art as a whole including the Iwasa '685 reference neither teaches nor suggests the present invention as amended. Iwasa '685 discloses a surface emitting laser array comprising a first laser array and a second laser array being placed equally spaced from each other with no gap. Specifically, Figure 10A of the Iwasa '685 reference shows a two dimensional surface emitting laser beam recorder with a first optical system for enlarging laser light emitted from the laser array, a reflecting mirror for reflecting the laser light enlarged, and a second optical system for enlarging or reducing the laser light reflective from the reflecting mirror in the sub-scanning direction. In contrast, the present invention as claimed teaches an invention whereby a laser light is bundled and focused instead of being enlarged. Furthermore, the prior art reference, Iwasa '685, discloses a process of reflection which is not present in the present invention as claimed.

Iwasa '685 does not provide any suggestion nor motivation which would lead a person of ordinary skill in the art to believe that strictly focusing instead of enlarging or reducing will lead to a better printing method. Instead, Iwasa '685 leads a person of ordinary skill in the art to utilize a reflecting mirror for reflecting the laser light according to Figure 10A. This is completely different approach from the combination of the present invention as claimed.

Furthermore, the Iwasa '685 reference does not disclose the two aspherical lenses arranged in such a manner that a coordinate-based focusing is performed in a first and second direction. This is also not suggested by the prior art reference Iwasa '685. In fact, the prior

art reference Iwasa '685, discloses a system for enlarging the laser light as shown in Figure 11A and 11B and in the prior art specification (column 8).

Thus, it is Applicant's contention that the prior art reference Iwasa '685 neither teaches nor suggests two sets of limitations which perform to generate a focused printing in a first direction and along a second direction.

CLAIM REJECTIONS - 35 U.S.C. § 103

Claims 1-2, 7, 14, 19, and 21-23 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasa '685 in view of Satoh et al. (U.S. Patent No. 5,684,523, "Satoh '523", hereinafter).

Satoh '523 discloses a light emitting diode chip arranged in a roll to form an array for producing a number of optical beams parallel to each other in a first direction. Nowhere in the Satoh '523 reference does it suggest that the light emitting diode is a laser light emitting diode. In the present invention as claimed, laser is a crucial element that performs the conditioning or exposure of the printing form to illustrate the form.

Furthermore, the combination of features, which are not taught by the prior art, provides several improved effects for the present invention as claimed. For instance, the present invention as claimed has the advantage of providing a substantially improved focusing method for printing with a laser.

In addition, Applicant finds no incentive in Satoh '523 which would lead a person to combine all the structural features and arrangement of the two aspherical lenses as in claim 1. There are no aspherical lens for focusing along a dimension. Therefore, claim 1 cannot be

obvious in view of Satoh '523.

The Satoh '523 reference also clearly fails to teach and fails to suggest the combination of the invention. Absent a teaching or a suggestion of the important feature of the invention, the combined references clearly do not direct a person of ordinary skill in the art toward the combination as claimed. There must be some suggestion or teaching in the prior art as a whole which would lead the person of ordinary skill in the art to provide the combination as claimed. As the prior art as a whole fails to direct the person of ordinary skill in the art toward the claimed combination, the invention should be considered not anticipated, nonobvious and thus patentable.

Claims 15 and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwasa '685 in view of Ishihara et al (JP-9-211280, "Ishihara '280", hereinafter).

Ishihara '280 discloses an optical system. However, the Ishihara '280 reference fails to suggest that the two aspherical lenses are arranged so that a coordinated focusing is performed. This X-Y coordinated focusing narrows the laser light on a desired spot on the printing form in a first and second direction in the present invention as claimed. Iwasa '685 in combination of Ishihara '280 fail to suggest such features as claimed in the present invention.

Claims 3 and 4 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwasa '685 in view of Satoh '523 as applied to claim 1, and further in view of Ishihara '280.

As noted above, none of the cited documents, Iwasa '685, Satoh '523 nor Ishihara '280 either separately or in combination disclose that the two aspherical lenses are arranged to focus the laser light in a first and second direction.

There must be some suggestion or teaching in the prior art as a whole which would lead the person of ordinary skill in the art to provide the combination as claimed. The prior art references as cited fail to direct the person of ordinary skill in the art toward the claimed combination. Thus, the invention should be considered not anticipated, nonobvious and thus patentable.

Claims 17-18 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwasa '685 in view of Nakamura et al. (U.S. Patent No. 5,745,296, "Nakamura '296", hereinafter).

Nakamura '296 describes a lens arrangement for a multi-beam recording device. The device comprises a first lens arrangement 20 comprising a first lens 21 and second lens group 22 which is moved in an X-direction. This is done to focus the light on the photosensitive medium P (see column 8, lines 5-8). A focusing unit includes a focusing illumination unit 40 with an LED 41 to analyze the focusing of the first lens arrangement 20 (Figure 1).

This focusing illumination unit 40 cannot focus the laser light beam in two directions (i.e., two dimensions) because there is no second aspherical lens needed to focus in a second direction.

Therefore, Applicant finds that Iwasa '685 as modified by Satoh '523 and further in view of Nakamura '296 do not anticipate the current invention and do not suggest or provide a motivation to use the teachings of the reference to provide the combinations as claimed.

As the prior art references fail to suggest the combination of features as claimed, Applicant respectfully requests that the Examiner favorably consider the claims as now presented.

The Examiner is requested to consider reference cited in the corresponding European Search Report. Applicant submits herewith the Government Fee relating to the Information Disclosure.

EP 0 992 350 A1 has been cited in the European Search Report under Category X with regard to claims 8 and 9 of the international stage application corresponding to this national stage application. The reference discloses a method and apparatus for light modulation and exposure at high levels with high resolution.

EP 0 841 806 A2 has been cited in the European Search Report under Category X with regard to claims 8 and 9 of the international stage application corresponding to this national stage application. The reference discloses a method of exposing printing plates, particularly printing plates with use in newspaper printing, using transnational movement exposed drum in a direction substantially parallel to the rotational axis of the drum.

U.S. Patent No. 5,790,576 has been cited in the European Search Report under Category X with regard to claims 1-7 of the international stage application corresponding to this national stage application. The reference discloses a high brightness laser diode source with lense that has an acicular cylindrical first surface and an aspherical or binary defective second surface.

EP 0 915 541 A2 has been cited in the European Search Report under Category X with regard to claims 1-9 of the international stage application corresponding to this national stage application. The reference discloses a diode-pumped system and method for producing image spots of constant size. The pumped laser crystals for use in an imaging apparatus are designed and housed so as to minimize variation in dot size across the spectrum of duty cycles ranging

generally from 1% to 100%.

U.S. Patent No. 5,990,925 a corresponding application of the EP 0 915 541 A2 discloses a diode-pumped system and method for producing image spots of constant size wherein pumped laser crystals are designed and housed so as to minimize variation in the size across a spectrum of duty cycles ranging generally from 1% to 100%.

Canadian Patent 2,260,565 discloses a method for combining the output of a laser diode array into a single telocentric stripe.

U.S. Patent No. 5,978,010 a corresponding application of the EP 0 841 806 discloses a printing plate exposure apparatus for recording image data spirally.


Chinese Application No. 0114 5061.4 discloses an imaging device of the present invention wherein a first office action has been received. Also, an English translation of the first office action is provided within.

JP-07-287165 discloses an optical system which amends the spherical operation produced in situations where lights are emitted from a light source section in parallel. A Japanese computer translation is enclosed with the reference.


If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time, Applicant respectfully requests reconsideration of this application in view of the above amendments and remarks and Applicant respectfully solicits allowance of this application.

Respectfully submitted
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JJM/DWK:jms

Enclosed: Petition for One Month Extension of Time
Associate Power of Attorney/Appointment of Agent
Request to Charge Deposit Account
(5) references, copy of European Search Report, PTO Form 1449

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